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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,077	12/31/2003	Alan J. Solyntjes	58504US002	2080
32692	7590	08/28/2009		
3M INNOVATIVE PROPERTIES COMPANY			EXAMINER	
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			ART UNIT	PAPER NUMBER
			3771	
			NOTIFICATION DATE	DELIVERY MODE
			08/28/2009	ELECTRONIC

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/750,077  
Filing Date: December 31, 2003  
Appellant(s): SOLYNTJES ET AL.

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Karl G. Hanson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/2/2009 appealing from the Office action mailed 2/19/2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,732,695	METZGER	3-1998
5,741,084	DEL RIO et al.	3-1998
4,364,689	DUMORTIER	12-1982

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-14 and 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metzger (US 5,732,695) in view of Dumortier (US 4,364,689).**

Regarding claims 1-5, 6, 9, 14, and 20-22, Metzger discloses a personal respiratory protection device comprising a mask body (14) adapted to fit over at least a person's nose and mouth, at least one fluid communication component (28) located in fluid communication with the mask body so that a non-contaminated breathing gas supply source (filter cartridge 10) can be supplied to a wearer, and at least one bayonet attachment system (80, 82) that enables the

breathing gas supply source to be fluidly communicatively secured to the fluid communication component, the bayonet attachment system having a first portion (82) and a second portion (80). Metzger is silent as to a connection being created when the first and second portions are attached that is incapable of being inadvertently separated. However, Dumortier discloses a bayonet attachment system that comprises a first portion (6) and a second portion (8), the first portion comprising a first tab receptacle (larger area within chamber 6 seen in Figure 1), a first ramp portion (inside of protrusion 5 that forms a first wall of the tab receptacle), and a first tab void area (W) and the second portion comprising a first tab (8) extending therefrom and having a size no greater than the first tab void area or the first tab receptacle so that when the first portion is attached to the second portion, the tab sits within the first tab receptacle to form a permanent connection that can only be separated by a key or by breaking part of the first, second, or third (7) portion of the attachment system (see column 4, lines 10-50 and column 5, lines 45-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bayonet attachment system of Metzger with a locking means as taught by Dumortier in order to prevent the release or unlocking of the connection by accident or inadvertence (see column 1, line 65-column 2, line 5 of Dumortier).

Regarding claims 7 and 8, the locking device (7) is “permanently” connected to the first and/or second portion (column 4, lines 45-50) and therefore can be said to be either integral or integrated with the portions.

Regarding claims 10-13, limitations “power purifying respirator”, “self contained breathing apparatus”, “full face mask”, and “a supplied air hood” are considered alternative forms of interfaces known to one of ordinary skill in the art. Therefore, it would have been

obvious to one of ordinary skills in the art to consider the respiratory mask of Burns as an equivalent interface. Additionally, Applicant has not established why a specific type of respirator is critical to the invention in terms of proving a specific function and/or solving a stated problem. Therefore, it would have been obvious to one of ordinary skills in the art to substitute one respiratory protection device with another equivalent interface as a matter of design choice.

Regarding claim 17, Dumortier discloses that the first portion has an aperture there though (area under ramp 5), and the piece (7) can be considered part of the second portion that has an aperture (13) there through, the piece (7) configured for attachment to the first portion such that the first portion aperture aligns with the piece aperture (see Figures 7-8).

Regarding claims 18 and 19, Metzger discloses three first and second portions (see Figure 1) and in addition, Dumortier discloses that there can be a plurality of first and second portions (column 3, line 65-column 4, line 2).

Regarding claims 23-27, the modified Metzger device has all of the structural limitations needed to perform the recited method steps and is fully capable of doing so. It would have been obvious to one of ordinary skill in the art at the time the invention was made to be obvious to one of ordinary skill in the art at the time the invention was made to have performed the recited method steps of claims 23-27 because they would have directly resulted from use of the modified Metzger device.

**Claims 1-3, 7, 8, 10-16, 18-20, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metzger (US 5,732,695) in view of Del Rio et al. (US 5,741,084).**

Regarding claims 1-3, 14-16, 20, 23, and 24, Metzger discloses a personal respiratory protection device comprising a mask body (14) adapted to fit over at least a person's nose and mouth, at least one fluid communication component (28) located in fluid communication with the mask body so that a non-contaminated breathing gas supply source (filter cartridge 10) can be supplied to a wearer, and at least one bayonet attachment system (80, 82) that enables the breathing gas supply source to be fluidly communicatively secured to the fluid communication component, the bayonet attachment system having a first portion (82) and a second portion (80). Metzger is silent as to a connection being created when the first and second portions are attached that is incapable of being inadvertently separated. However, Del Rio et al. discloses a bayonet attachment system that comprises a first portion (20) and a second portion (18), the first portion comprising a first tab receptacle (41), a first ramp portion (60 that forms a first wall of the tab receptacle), and a first tab void area (36) and the second portion comprising a first tab (24) extending therefrom and having a size no greater than the first tab void area or the first tab receptacle so that when the first portion is attached to the second portion, the tab sits within the first tab receptacle to form a connection that is in capable of being inadvertently separated (see column 1, lines 44-50 and column 2, lines 24-28). In addition, Del Rio et al. discloses the ramp portion comprising a spring mechanism (column 2, lines 13-16) and a first end (44) that defines the first wall of the tab receptacle (see Figure 6) as well as a second end opposite the first end and attached to an inner surface (see Figure 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bayonet attachment system of Metzger with a locking means as taught by Del Rio et al. in order to prevent the release or unlocking of the connection by accident or inadvertence.

Regarding claims 7 and 8, the spring arm (43) can be considered integral or integrated with the first portion (see Figure 6).

Regarding claims 10-13, limitations “power purifying respirator”, “self contained breathing apparatus”, “full face mask”, and “a supplied air hood” are considered alternative forms of interfaces known to one of ordinary skill in the art. Therefore, it would have been obvious to one of ordinary skills in the art to consider the respiratory mask of Burns as an equivalent interface. Additionally, Applicant has not established why a specific type of respirator is critical to the invention in terms of proving a specific function and/or solving a stated problem. Therefore, it would have been obvious to one or ordinary skills in the art to substitute one respiratory protection device with another equivalent interface as a matter of design choice.

Regarding claims 18 and 19, Metzger discloses three first and second portions (see Figure 1) and in addition, Del Rio et al. discloses that there can be a plurality of first and second portions (Figure 1).

Regarding claims 23 and 24, the modified Metzger device has all of the structural limitations needed to perform the recited method steps and is fully capable of doing so. It would have been obvious to one of ordinary skill in the art at the time the invention was made to been obvious to one of ordinary skill in the art at the time the invention was made to have performed the recited method steps of claims 23 and 24 because they would have directly resulted from use of the modified Metzger device.



### **(10) Response to Argument**

#### **First Ground of Rejection**

In response to appellant's argument that neither Metzger nor Dumortier teach a connection that is incapable of being inadvertently separated as defined by the instant application, examiner acknowledges that the term "incapable of being inadvertently separated" is explicitly defined in paragraph 19 of the instant specification as meaning that the first and second portions are permanently joined or "can only be separated through use of a key that unlocks the first and second portions without breaking or destroying the portion..." However, the term "key" is defined in paragraph 20 as being an "implement, device, element, or input..." Particularly, examiner points to the words "device" and "input." Dumortier clearly teaches the use of a device (i.e., "tool or key 44") to unlock and open a bayonet connection (see column 5, line 65-column 6, line 43). Additionally, examiner notes that any force needed to move the pawl (i.e., with a finger instead of use of a device, for example) to the lifted position so that the bayonet connection can be rotated for opening would read on the limitation of only being separated through use of a key/input that unlocks the first and second portions without breaking or destroying the portion.

In response to appellant's argument that Metzger teaches away from a connection that is incapable of being inadvertently separated because Metzger teaches a detachable connection, Examiner respectfully maintains that even with use of a "key" the connection of the instant invention is in fact detachable as well. Therefore, the combined Metzger/Dumortier device would not teach away from Metzger because the combination would work in the same way

desired by Metzger (detachable to allow replacement) and Dumortier (lockable to avoid inadvertent separation). Additionally, because Metzger explicitly teaches that the mask is to be used in “hazardous breathing conditions such as in environments having noxious vapors or particulates in the air” (column 1, lines 10-15), one of ordinary skill in the art would recognize the need to ensure that the filter does not become loosened inadvertently while in these dangerous environments while still wanting to be able to replace filters and reuse the body of the device.

Appellant’s argument that Dumortier is non-analogous art, examiner maintains that the instant invention focuses on the attachment system, with the mask body being a generic mask body well known in the art. Therefore, one of ordinary skill in the art would be motivated to look to bayonet attachment systems in general, not just limited to respiratory art. Furthermore, as discussed above, Metzger explicitly teaches that the mask is to be used in “hazardous breathing conditions such as in environments having noxious vapors or particulates in the air” (column 1, lines 10-15). One of ordinary skill in the art would recognize the need to ensure that the filter does not become loosened inadvertently while being used in these dangerous environments because breathing noxious fumes even for a moment in some environments is extremely dangerous and life threatening. Additionally, Dumortier clearly teaches that inadvertent separation of bayonet attachment systems is a problem (column 1, lines 25-30) and discloses a method of addressing that problem involving use of a key to unlock the attachment only when desired. One of ordinary skill in the art would recognize that Metzger and Dumortier both deal with the same problem of not wanting a bayonet attachment to separate inadvertently. Use of the known method of Dumortier to prevent inadvertent separation of a bayonet attachment system in

a well known mask with a well known bayonet attachment that is capable of being inadvertently separated would thus yield predictable results that do not patentably distinguish an invention over the prior art.

### Second Ground of Rejection

In response to appellant's argument that Del Rio is non-analogous art, examiner maintains that the instant invention focuses on the attachment system, with the mask body being a generic mask body well known in the art. Therefore, one of ordinary skill in the art would be motivated to look to bayonet attachment systems in general, not just limited to respiratory art. Furthermore, as discussed above, Metzger explicitly teaches that the mask is to be used in "hazardous breathing conditions such as in environments having noxious vapors or particulates in the air" (column 1, lines 10-15). One of ordinary skill in the art would recognize the need to ensure that the filter does not become loosened inadvertently while being used in these dangerous environments because breathing noxious fumes even for a moment in some environments is extremely dangerous and life threatening. Additionally, Del Rio clearly teaches that inadvertent separation of bayonet attachment systems is a problem (abstract and column 1, lines 61-65) and discloses a method of addressing that problem involving use of spring arm to securely hold the connection together. One of ordinary skill in the art would recognize that Metzger and Del Rio both deal with the same problem of not wanting a bayonet attachment to separate inadvertently. Use of the known method of Del Rio to prevent inadvertent separation of a bayonet attachment system in a well known mask with a well known bayonet attachment that is

capable of being inadvertently separated would thus yield predictable results that do not patentable distinguish an invention over the prior art.

In response to appellant's argument that Del Rio teaches an attachment that is "removable," examiner respectfully maintains that the instant invention is in fact removable as well. As discussed above, "incapable of being inadvertently separated" as defined by the instant application, is explicitly defined in paragraph 19 of the instant specification as meaning that the first and second portions are "permanently joined *or can only be separated through use of a key* that unlocks the first and second portions without breaking or destroying the portion..." [emphasis added]. However, the term "key" is defined in paragraph 20 as being an "implement, device, element, or input..." Particularly, examiner points to the word "input." Del Rio teaches use of a spring arm (43) to firmly hold the bayonet connection in place to avoid inadvertent separation caused by vibrations and wear (column 5, lines 10-35). When one wants to separate the connection of Del Rio, a user needs to apply additional force to overcome the spring action and move the first portion of the connection past the angled end of the spring arm 43. This extra force to deform the spring arm is considered an "input" that unlocks the first and second portions without breaking or destroying the portion, thus reading on the instant invention.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Art Unit: 3771

Respectfully submitted,

/Kristen C. Matter/

Examiner, Art Unit 3771

/Steven O. Douglas/  
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